

## **Remarks**

### **I. Status of the Claims.**

Claims 1 and 3-9 are pending. Claims 1 and 5 have been amended. Applicants submit that the above claim amendments introduce no new matter, raise no new issues, and do not necessitate an additional search.

Claims 1 and 3-9 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,163,896 to Suthanthiran (hereinafter "Suthanthiran"). Claims 1 and 3-9 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Nos. 6,152,869 to Park (hereinafter "Park") or 5,871,436 to Eury (hereinafter "Eury"). Claims 1 and 3-9 stand rejected under 35 U.S.C. § 103() as being unpatentable over either Euthanthiran or Eury in view of either Park or U.S. Patent No. 5,342,283 to Good (hereinafter "Good").

Claims 1 and 3-9 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the claims of co-pending Application Serial No. 09/506,611.

Claim 5 stands rejected under 35 U.S.C. § 112.

### **The rejection under 35 U.S.C. § 112.**

The Action rejects Claim 5 as being indefinite. The Action states that the term "miniature" is indefinite and that the meaning of "active" and "inactive" is unclear. Accordingly, Claim 5 has been amended such that the term "miniature" has been removed from the claim and that the active squares contain the integral source material. Such amendments are made to address the rejection under § 112 and are not related to issues regarding the cited prior art.

Accordingly, Applicant requests that the rejection under § 112 be removed.

### **The §§ 102 and 103 Rejections.**

The Action states that proper analysis of the claims does not require the presence of a nuclide, and that the term "activatable" does not require a radionuclide. Thus, the Action takes the position that, for example, the polymer in the cited references need only contain carbon in the polymer chain. Applicant submit that none of the references disclose that carbon in the polymer chain is "activatable." However, Claim 1 has been amended to recited

that the "at least one nuclide" is "activated by exposure to radiation" in order to expedite prosecution.

For the reasons discussed in the Amendment filed October 22, 2002, none of the cited references teach or suggest a nuclide that is activated by exposure to radiation and a chemically bound constituent of a polymer chain. In summary, Suthanthiran discloses that the radioactive material is physically absorbed in a polymeric binder material. See Suthanthiran, col. 4, lines 24-28. Park describes a process in which the "radionuclide is evenly mixed with ... carrier material evenly and dried to be dispersed and fixed within the carrier polymer." See Park, col. 6, lines 23-28 (emphasis added). Eury proposes a radioisotope layer that is applied to a chelator. See Eury, col.4, line 1- col. 5, line 12. A chelator is a chemical compound in the form of a heterocyclic ring.

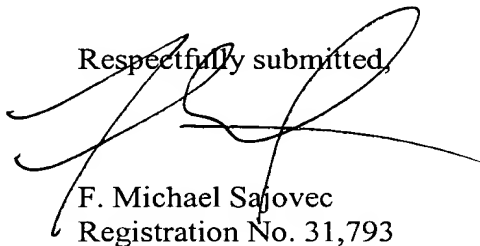
The deficiencies of Suthanthiran, Park and Eury are not cured by Good. The First Office Action mailed April 22, 2002 does not appear to allege that Good discloses a nuclide that is a chemically bound constituent of a polymer chain (see page 4, paragraph 5 of the First Office Action). Good merely state as an objective to incorporate "a nonradioactive elemental isotope into a seed during manufacture of a seed that will later form the desired radioactive isotope when the finished seed is bombarded with neutrons." Good, col. 3, lines 4-10.

For the reasons discussed above, none of the references teach or suggest a nuclide that is activated by exposure to radiation and a chemically bound constituent of a polymer chain. Therefore, Applicant requests that the rejections under §§ 102 and 103 be removed.

## VI. Conclusion

In light of the above amendments and remarks, Applicants respectfully submit that the application is in condition for allowance and respectfully requests same. The Examiner is requested to contact the undersigned to resolve any remaining issues.

Respectfully submitted,




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In re: O'Foghludha  
Serial No.: 09/614,490  
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**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Box AF, Commissioner for Patents, Washington, DC 20231, on February 12, 2003.

  
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Carey Gregory  
Date of Signature: February 12, 2003

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

The following is an addendum to the concurrently filed Amendment in response to the Official Action dated December 12, 2002 in the above-referenced application. This addendum includes a marked-up version of the changes made to the specification and claims by the present Amendment.

**In the claims:**

Please amend the claims as follows:

1. (Twice Amended) An integral source material having at least one nuclide that is [activatable] activated by exposure to radiation, the nuclide is a chemically bound constituent of a polymer chain of the integral source material, wherein the integral source material is configured before activation to provide a device wherein the device is selected from the group consisting of test-objects, rectangular and disc shaped sources configured to radiate an area, radioactive enclosures, flood sources, nuclear imaging devices, shrouds and excitation sources for energy-dispersive fluorescence analysis.

5. (Amended) An integral source material according to Claim 1, wherein the device comprises a [miniature] checkerboard comprising alternating active and inactive squares, the active squares containing [target nuclides] the integral source material.